



11-07-02

PATENT
910000-2028.1

GP 1711

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Dmt
6-12-03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Borenstein et al.
Serial No. : 10/038,891
Filed : January 2, 2002
For : TISSUE ENGINEERING OF THREE-DIMENSIONAL
VASCULARIZED USING MICROFABRICATED POLYMER
ASSEMBLY TECHNOLOGY
Examiner : To Be Assigned
Art Unit : To Be Assigned

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Date of Deposit: November 6, 2002

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Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

The Examiner's attention is respectfully drawn to the enclosed documents listed on the accompanying PTO form 1449.

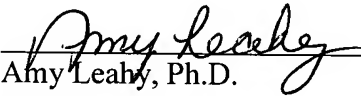
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The filing of this Information Disclosure Statement is not an admission that the documents identified herein constitute prior art to the present application.

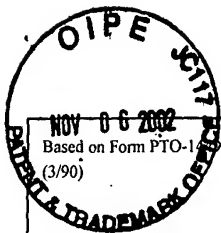
Applicants respectfully request that the Examiner considers and makes of record the documents cited herewith and that a copy of Form PTO-1449 be initialed by the Examiner and returned to the undersigned.

Respectfully submitted,

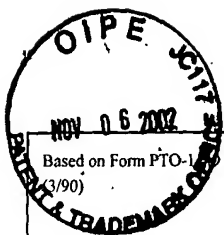
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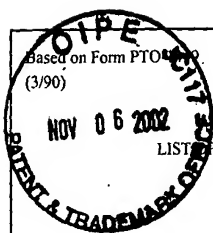


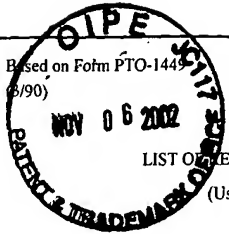
LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)				ATTY. DOCKET NO. 910000-2028.1		SERIAL NO. 10/038,891		
				APPLICANT Borenstein et al.				
				FILING DATE January 2, 2002		GROUP		
U.S. PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	AA	US 6,143,293	11/7/00	Weiss et al.				
	AB	US 6,245,566	6/12/01	Gearhart et al.				
	AC	US 5,843,780	12/1/98	Thomson				
	AD	US 6,200,802	3/13/01	Greene et al.				
	AE	US 5,486,359	1/23/96	Caplan et al.				
	AF	US 5,849,553	12/15/98	Anderson et al.				
	AG	US 5,061,620	10/29/91	Tsukamoto et al.				
	AH	US 6,183,781	2/6/01	Burke				
	AI	US 5,843,780	12/1/98	Thomson				
	AJ	US 6,200,802	3/13/01	Greene et al.				
	AK	US 5,204,055	4/20/93	Sachs et al.				
FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AL	WO 01/11011	02/15/01	WIPO				
	AM	WO 96/40002	12/19/96	WIPO				
	AN							
	AO							
	AP							
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)								
	AQ	Bell et al., <i>Science</i> 221, 1052 (1981)						
	AR	Burke, et al., <i>Ann Surg</i> 194, 413 (1981)						
	AS	Langer, et al. <i>Science</i> 260, 920 (1993)						
	AT	Vacanti, et al., <i>Materials Research Society</i> 252, 367 (1992)						
	AU	Vacanti, et al., <i>Lancet</i> 354, 32 (1999)						
EXAMINER				DATE CONSIDERED				
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AW		Rennie, J. <i>Scientific American</i> 280, 37 (1999)	
AX		Lysaght, et al., <i>Tissue Eng</i> 4(3), 231 (1998)	
AY		Amedee et al. <i>Differentiation</i> , 58:157-164 (1994)	
BA		Burke, et al., <i>Ann Surg</i> 194, 413 (1981)	
BB		Compton, et al., <i>Laboratory Investigation</i> 60, 600 (1989)	
BC		Parenteau, et al., <i>Journal of Cellular Biochemistry</i> 45, 24 (1991)	
BD		Parenteau, et al., <i>Biotechnology and Bioengineering</i> 52, 3 (1996)	
BE		Purdue, et al., <i>J. Burn Care Rehab</i> 18, 52 (1997)	
BF		Hansbrough and Franco, <i>Clinical Plastic Surg</i> 25, 407 (1998)	
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BH		Kane, et al., <i>Biomaterials</i> 20, 2363 (1999)	
BI		Griffith, et al., <i>Annals of Biomed. Eng.</i> , 26 (1998)	
BJ		Griffith, et al., <i>Annals of Biomed. Eng.</i> , 831 (1997)	
BK		Folch, et al., <i>Biotechnology Progress</i> , 14, 388 (1998)	
BL		Eiselt, et al., <i>Biotechnol. Prog.</i> 14, 134 (1998)	
BM		Wang et al, <i>Nature Biotech</i> 20, 602 (2002)	
BN		Runyan, et al., <i>Semiconductor Integrated Circuit Processing Technology</i> (Addison-Wesley Publishing Co., Reading MA 1990); <i>Proceedings of the IEEE Micro Electro Mechanical Systems Conference 1987-1998</i>	
BO		Jansen, et al., "The Black Silicon Method IV: The Fabrication of Three-Dimensional Structures in Silicon with High Aspect Ratios for Scanning Probe Microscopy and Other Applications," <i>IEEE Proceedings of Micro Electro Mechanical Systems Conference</i> , pp. 88-93 (1995)	
BP		Frazier, et al., "Two dimensional metallic microelectrode arrays for extracellular stimulation and recording of neurons", <i>IEEE Proceedings of the Micro Electro Mechanical Systems Conference</i> , pp. 195-200 (1993)	
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BR		Laermer, et al., "Bosch Deep Silicon Etching: Improving Uniformity and Etch Rate for Advanced MEMS Applications," <i>Micro Electro Mechanical Systems</i> , Orlando, FL, USA, (Jan. 17-21, 1999)	
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BU		A.A. Ayon, S. Nagle, L. Frechette, A. Epstein and M.A. Schmidt, "Tailoring etch directionality in a deep reactive ion etching tool," <i>J. Vac. Sci. Tech. B</i> 18, 1412 (2000)	
BV		Sachs, et al., <i>Manufacturing Review</i> 5, 117-126 (1992)	
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BW		Xu, et al. <i>Nat. Biotechnol.</i> , 19, 971 (2001)	
BX		Keller, et al. (1999) <i>Exp. Hematol.</i> 27:777-787	
BY		Marti, et al. (1995) <i>Nature</i> . 375:322-325	
BZ		Prelle, et al. (2000) <i>Biochem. Biophys. Res. Commun.</i> 277:631-638	
CA		Hardt, et al. (1985) <i>Eur. J. Immunol.</i> 15:472-478	
CB		Huelsken, et al. (2001) <i>Cell</i> . 105:533-545	
CC		Ji, et al. (2000) <i>J. Bone Miner. Metab.</i> 18:132-139	
CD		Migliorati, et al. (1987) <i>J. Immunol.</i> 138:3618-3625	
CE		Eghbali, et al. (1991) <i>Proc. Natl. Acad. Sci. USA</i> . 88:795-799	
CF		Niijima, et al. (1995) <i>J. Neurosci.</i> 15:1180-1194	
CG		Guo, et al. (1997) <i>Dev. Biol.</i> 184:61-69	
CH		Ling, et al. (1998) <i>Exp. Neurol.</i> 149:411-423	
CI		Lopez-Fernandez, et al. (2000) <i>J. Biol. Chem.</i> 275:21653-60	
CJ		Wang, et al. (1989) <i>Leuk. Res.</i> 13:1091-1097	
CK		Lako, et al. (2001) <i>Mech. Dev.</i> 103:49-59	
CL		Evans et al. (1981) <i>Nature</i> 292:154-156	
CM		Matsui et al. (1991) <i>Nature</i> 353:750-2	
CN		Thomson et al. (1995) <i>Proc. Natl. Acad. Sci. USA</i> . 92:7844-8	
CO		Thomson et al. (1998) <i>Science</i> 282:1145-1147	
CP		Shamblott et al. (1998) <i>Proc. Natl. Acad. Sci. USA</i> 95:13726-31	
CQ		Mitaka, et al., <i>Biochem Biophys Res Commun</i> 214, 310 (1995)	
CR		Taneto, et al, <i>Am Jpathol</i> 148, 383 (1996)	
CS		Mitaka, et al., <i>Hepatology</i> 29, 111 (1999)	
CT		Teebken, et al., <i>Eur J. Vasa Endovasc. Surg.</i> 19, 381 (2000)	
CU		Ranucci, et al., <i>Biomaterials</i> 21, 783 (2000)	
CV		Burg et al., <i>J. Biomed. Mater. Res</i> 51, 642 (2000)	
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CX	Camporese, et al., IEEE Electron. Device Lett. EDL 2, 61 (1981)		
CY	Block, et al., J Cell Biol, 132, 1133 (1996)		
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DB	Nishikawa, et al., Exp Cell Res, 223, 357 (1996)		
DC	Uyama, et al., Transplantation 55, 932 (1993)		
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DF	Seglen, Methods Cell Biol 13, 29 (1976)		
DG	Schwerer, et al., Clinica Chemica Acta 163, 237 (1987)		
DH	Peterson JE J Pathol Bacteriol 89, 153 (1965)		
DI	Duffy, et al., Anal. Chem. 70, 4974 (1998)		
DJ	Mitaka, et al., Gastroenterol Hepatol 13 Suppl, S70 (1998)		
DK	Tateno, et al., Am J Pathol 149, 1593 (1996)		
DL	Laconi, et al., Am J. Pathol 153, 319 (1998)		
DM	Hansborough & Franco (1998) "Skin Replacements," Clin. Plast. Surg. 25(3): 407-23.		
DN	Henry, et al. (1998) "Micromachined Needles for the Transdermal Delivery of Drugs," The Eleventh Annual International Workshop on Micro Electro Mechanical Systems, Heidelberg, Germany, January 25-29, 1998.		
DO	Kourepentis et al. (1998) "Performance of MEMS Inertial Sensors," Position Location and Navigation Symposium, Aerospace & Electronic Systems Society, Palm Springs, California, April 20-23, 1996		
DP	McWhorter et al. (1997) "Volume 2: Micromachining and Trends for the Twenty-First Century," Handbook of Microlithography, Micromachinery and Microfabrication. Ed. P. Rai-Choudhury, Bellingham, WA: SPIE Press.		
DQ	Rennie, J. ed. (1999) Special Report: The promise of tissue engineering. Scientific American 280: 37.		
DR	Vacanti et al. (1992) "Tissue-Inducing Biomaterials," Materials Research Society Symposium Proceedings 252: 367		
DS	Langer & Vacanti, (1993) "Tissue Engineering," Science 260(5110): 920-6		
DT	Langer & Vacanti, (1999) "Tissue Engineering: The obstacles to building new organs from cells and synthetic polymers are daunting but surmountable," Scientific American 280, 86-89		
DU	Sunback & Vacanti, "Alternatives to liver transplantation: From hepatocyte transplantation to tissue-engineered organs," Gastroenterology 118: 438-442 (2000)		
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